

AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Please amend the title as follows:

~~Polishing Machine~~ --Abrading Machine--

On page 22, beginning at line 10 through line 13:

--The accurate members 233 are mounted ~~in the arm 7~~ on a mounting plate 28.

The mounting plate 28 is mounted at an end to allow pivoting in a perpendicular plane.--

On page 22, beginning at line 17, ending on page 23 through line 4:

--An upper part of the end of the mounting plate 28 is mounted on a motor plate 32. On the motor plate 32, there is mounted a motor 33 for driving a cog 34. The mounting plate 31 is provided with an arcuate member 35 having a center of its radius of curvature at the pivot point 30. The arcuate member 35 is provided with teeth to engage the cog 34 to allow the pivotal driving motion of the ~~[[arm]]~~ head 7 about a pivoting axis AX which intersects the pivot axis BX at the portion of the head 7 near the working member 8. The point of intersection of the pivot axes AX and BX is the central of the radius of curvature of the working member 8. The motor plate 32 also mounts guide wheels 36 to guide the pivotal motion of the ~~[[arm]]~~ head 7.--

On page 24, beginning at line 9 through page 25 ending at line 14:

--An upper part of the head 7 comprises a block 39 to which the motor 24 is fixed. Extending from within the block 39 there is provided a stationary shaft 40. The stationary shaft 40 has a head 41 which is mounted at three points in the plane of this

sectional diagram and at four equally spaced points in a plane orthogonal to this sectional diagram. The mounting points of the head 41 allow for the load experienced by the head 41 to be measured. In order to provide this there are provided three load cells 42 (two shown in the plane of this sectional diagram and one lying in the orthogonal direction). The load cells 42 are preloaded thus avoiding the need for five load cells; one for each mounting point of the head 41. The head 41 is mounted at each point, via load cell 42 where present, on support pins 43. The support pins include two waisted portions to reduce any lateral tension experienced by the load cell 42. One end of the support pin 43 engages the head 41 at the mounting points. The other end of the support pin 43 is mounted on a steel ball 44 which sits in a cup 45 which is biased by a spring 46 against the block 39. In this way, the head 41 of the stationary shaft 40 is allowed to move when both a lateral and vertical force is experienced by the shaft 40. The lateral and vertical loads on the shaft can be measured by the load cells 42. Lateral loads on the shaft ~~[[42]]~~ 40 will be experienced due to a frictional force as the working member 8 engages the surface of the workpiece 5. The vertical force will be dependent upon the position of the head 7 in relation to the workpiece and the pressure within the working member 8.--

On page 30, beginning at line 6 through line 9:

--Thus, fluid pressure transmitted down the cavity of the stationary shaft 40 is transmitted to the fluid chamber 88 which transmit the pressure to the pressure transmission membrane ~~[[88]]~~ 87.--